



A COMPARISON BETWEEN THE PHYSICAL FITNESS EXERCISE 2008 AND PHYSICAL FITNESS EXERCISE 2012 ON THE PHYSICAL FITNESS OF THE ELEMENTARY SCHOOL STUDENTS OF PADANG SELATAN DISTRICT, PADANG

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ABSTRACT

This study is based on the different implementation of Physical Fitness Exercise in several elementary schools of Padang. During their morning routine exercise, the State-Owned Elementary School Number 20 Alang Lawas practice the Physical Fitness Exercise 2012, while the State-Owned Elementary School Number 34 Seberang Palinggam practice the Physical Fitness Exercise 2008. The objective of this research is to find out which version of the Physical Fitness Exercise is more effective in increasing the physical fitness of the elementary students in Padang Selatan District, Padang.

This study is Ex Post Facto research. The research population was the female students of the 4th, 5th and 6th graders of the State-Owned Elementary School Number 20 Alang Lawas and the State-Owned Elementary School Number 34 Seberang Palinggam, City of Padang. The study uses the sampling technique of the cluster random sampling and employs 106 students as the sample, which consists of 52 students of the State-Owned Elementary School Number 20 Alang Lawas and 54 students of the State-Owned Elementary School Number 34 Seberang Palinggam. Data were analyzed with a statistical analysis of a t-test.

From the data I found based on the results of my research, that Physical Fitness Exercise 2012 is better to be used in elementary schools, than using Physical Fitness Exercise 2008.

The study found that the Physical Fitness Exercise 2012 has more effective effects in improving the physical fitness of the students compared to the Physical Fitness Exercise 2008. Based on the hypothesis test, it showed that the physical fitness level of the students at the State-Owned Elementary School Number 20 Alang Lawas was classified as moderate with an average score of 16.5, while the physical fitness level of

A Comparison Between the Physical Fitness Exercise 2008 and Physical Fitness Exercise 2012 on the Physical Fitness of the Elementary School Students of Padang Selatan District, Padang

the students of the State-Owned Elementary School Number 34 Seberang Palinggam was also classified as moderate but with an average score of 14.42.

Key words: Physical Fitness Exercise 2008, the Physical Fitness Exercise 2012.

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1. INTRODUCTION

National development in sports is one part of the National Development programs. The national development in sport has become an effective agent to improve the citizen's health and physical fitness, and also to prepare the nation's younger generation to become a healthy and strong generation. Performing a routine of physical exercise is expected to result in a healthy mind and body, a resistance to illness, and an increase in the productivity level.

The constitution of the Republic of Indonesia No.3 Year 2005 Article 1 Section 11 (2005:4) on National Sports System states that "Educational Sport is a physical education and sport that is conducted as a well-organized and sustainable process, to gain knowledge, personality, skills, fitness, and physical health". One of the government efforts in promoting sport is by introducing the sport in educational sectors, starting from elementary education to the higher education. The implementation of this effort is in the form of developing the students' physical fitness, especially for the elementary students, through a routine Physical Fitness Exercise. It was proven with a routine implementation of the morning's Physical Fitness Exercise in every elementary school. The Physical Fitness Exercise is even included in the learning curriculum of Physical Education Subject of the 5th-grade students in elementary school. The Physical Fitness Exercise is performed daily every morning at every elementary school in Padang in general, especially in Padang Selatan District. There are 38 private and state-owned elementary schools, including the Islamic elementary schools in Padang Selatan District. All of the schools perform the morning-routine Physical Fitness Exercise in the schools' open-ground. The Physical Fitness Exercise is a program that has been started since the era of former President of Indonesia, Mr. Soeharto of the New-Order Era. The program was intended to improve the Indonesian human resources. The new-order governments massively promoted the slogan of "to exercise the society and to socialize exercise". In the 70's, before the new-order era, there was also an exercise program called Indonesian Morning Exercise (SPI), but it wasn't as massively promoted as the Physical Fitness Exercise in the new-order era, which was directly controlled by the Ministry of Youth and Sports.

Nowadays, there are several versions of the Physical Fitness Exercise as implemented by the elementary schools in Padang Selatan District, Padang, among which is the Physical Fitness Exercise 2008 and the Physical Fitness Exercise 2012. Each exercise version has different moves, which also give different effects on the students' physical fitness level. One of the elementary schools that practices the Physical Fitness Exercise 2012 version is the State-Owned Elementary School Number 20 Alang Lawas, while the elementary school that practices the Physical Fitness Exercise 2008 version is the State-Owned Elementary School Number 34 Seberang Palinggam, City of Padang.

The implementation of these different versions of Physical Fitness Exercise has sparked a debate among many teachers of Physical Education Subject of elementary schools in Padang Selatan District. Each version supporter believed that their preferred version is more effective in improving fitness than the other version. On the contrary, the exercises are not

correctly performed by the students, as seen by the careless moves performed by the students, while the teachers of Physical Education Subject do not take part in performing the exercise. Based on the author's observations on the practices of the different versions of the Physical Fitness Exercise in the State-Owned Elementary School Number 20 Alang Lawas and the State-Owned Elementary School Number 34 Seberang Palinggam, Padang Selatan District, Padang, the author decided to conduct a scientific study on the comparison between the Physical Fitness Exercise 2008 version and the Physical Fitness Exercise 2012 version in the Fitness Effectiveness, to find out to what extent the effect of the exercises is on the fitness level of the elementary school students of Padang Selatan District, City of Padang. Furthermore, the study is expected to find which version of Physical Fitness Exercise has better effects on students' fitness level and improve the students' physical health.

According to Wikipedia, the Physical Fitness Exercise or commonly stated as SKJ is a mass exercise move that is obligated by the Indonesian government. The exercise is usually accompanied by the music of the traditional songs from multiple provinces of Indonesia that was rearranged to fit the Exercise moves. The exercise is commonly participated by the citizens in a large group and is performed in public open-ground places, usually on a certain day such as Friday morning. The exercise and the accompanying music have been very popular during its era, which is in the 80's and the 90', the New-order governmental era (<https://id.wikipedia.org>).

Ichsan (1988:59) states that "the exercise moves bring benefits to one's health optimally, especially when it is practiced regularly". Several disadvantages caused by not performing regular physical training/exercise on one's body include lack of physical strength, diabetes, hypertension, osteoporosis and heart attack.

Moreover, Wynder (1981:290) explains that "before practicing a physical exercise, several concerns should be considered: (1) the training program should be done regularly; (2) free time should be dedicated for the program, and (3) the schedule should be regular and gradual".

Based on the above explanations, it is concluded that the benefits, the practice and the implementation of exercise have a strong relationship with the expected optimization of the goal's achievements. Besides, prudential planning and regular practice time also affect the desired objectives of physical fitness to be achieved. Basically, the morning exercise is an exercise to maintain physical balance, but since the practice is conducted in the morning, it is called the morning exercise. Based on the operational definitions used in this study, it is stated that the exercise is conducted in the morning regularly and systematically. Furthermore, Hafen (1998:201) explains that "exercise is an activity which objective is to improve the heart's and lungs ability and physical growth, with selected moves that contain values that are required to achieve those objectives. One of the objectives in the physical fitness exercise is to improve the cardiovascular endurance. Hoeger (1998:15) elaborates that the cardiovascular endurance is the ability of lungs, heart and blood vessel, and the blood to transport an adequate amount of oxygen and nutrition compound to the active cell, to fulfill the body's demand for physical activity occurred in extended time.

The Physical Fitness Exercise 2008 or commonly called as SKJ 2008 is an exercise for physical fitness created in 2008. The exercise started to be socialized to the public in 2009. This exercise has the duration of 15 minutes 47 seconds.

The Physical Fitness Exercise 2012 or commonly called as SKJ 2012, is a series of exercise moves which objective is to improve and maintain one's physical fitness. Before performing SKJ 2012, one is advised to check his health condition with the physician/paramedics, especially for the one who: (1) aged 40 years old or more and have not been practicing exercise regularly, (2) aged less than 40 years old but have health problems

(Kemenpora, 2012: v). SKJ 2012 consists of 3 series of moves, the warming-up, the main exercises, and the cooling down. The exercise lasts for 12 minutes 36 second.

The exercises in Physical Fitness Exercise are similar to most exercise moves in general. The moves consist of the warming-up (the opening), main exercises (core moves), and cooling down (the ending).

1.1. Warming up

The warming up is important to be practiced before performing the exercise. Brick (2001:45) states that “the warming up is an emotional, psychological, and physical preparation to perform the exercise”. Dinata (2002:4)states that “the warming up contains moves that actively or passively work both generally or specifically to prepare the optimal condition and physical body before exercising or competition”. Joni (2006:33) states that it is important to “conduct the warming up before the main exercise for 5-8 minutes or 10-15 minutes long.”

Dinata (2010:15) states that “the objectives of warming up are: a) to gradually increase the body temperature and blood pulse, from the resting pulse into the exercise pulse, b) to improve muscle and ligament elasticity around the joints,and c) to prepare the body, physically and mentally, to get ready for the activity that will be performed.

1.2. Main Exercise

The main exercise is usually in the form of more active moves and involves moves to train particular body parts with a sufficient number of repetition. These main moves usually last for \pm 20 minutes, with the objective to gradually speed-up the pulse of heart-rate, and to increase the blood circulation to the heart and other body parts so that the blood flows continuously and the metabolism and body-fat burning increase.

1.3. The Cooling Down

Dinata (2010:17) states that “the cooling down process is meant to decrease the lactic acid build up that could cause fatigue and muscle soreness”.

According to Kemenpora (2012:v), physical fitness is the ability of a person to perform daily tasks without experiencing significant fatigue and to still be able to have reserve energy to perform other activities. A person is categorized as being fit (has physical fitness) if he has the strength, the motoric ability, power, creative energy, and endurance to perform efficient work without significant fatigue.

Yanto (2015:3) categorizes physical fitness into 3 types, namely:

- Static Fitness: a condition when someone is free from illness and disabilities or called as healthy
- Dynamic Fitness: the ability of a person to work efficiently in doing tasks that require no skills, like walking, running, and jumping.
- Motoric Fitness: a person’s ability to work efficiently in doing tasks that require special skills.

The components of physical fitness, according to Lycholat in Gusril (2004:119), are as follows:

- Components of Health-relatedfitness, including muscle endurance, muscle strength, flexibility, and body composition.
- Component of Skill related fitness, including agility, balance, speed coordination, energy in the form of power and reaction time.

Gusril (2004: 119) proposes factors that influence the level of physical fitness of the students, which includes the type of exercise, health condition, sex, age, students' skill level, learning motivation, and nutritional status.

2. MATERIALS AND METHODS

The type of research used in this study is the Ex post-Facto. According to Bungin (2011:58), the ex post facto research is a study with the objective to expose an ongoing event. In the classification of the research, this kind of research differs from the descriptive research, but in its application, the two kinds of research have some similarities". Sugiyono (2003:7) argues that the ex post facto research is a study that is conducted to examine the events that have occurred and then trace the events to find out the factors that can cause these events.

The variables in this study are SKJ 2008 and SKJ 2012 as the independent variables, and the level of fitness of students as the dependent variables. The population in this research consists of 432 elementary school students. Based on a number of sample considerations in sampling method, a sample of 106 students, consisting of 54 female students from the State-Owned Elementary School Number 20 Alang Lawas, and 54 students from State-Owned Elementary School-owned No. 34 Seberang Palinggam, the Padang Selatan district, City of Padang, is employed to represent the population the study. The sampling technique used is the purposive sampling, a method that selects samples according to the objective which the study wants to achieve.

3. RESULTS AND DISCUSSION

By conducting a test on the fitness level to 52 students at the State-owned Elementary School Number 20 Alang Lawas, the study found that the highest score obtained was 20, and the lowest score was 6, with the mean score of 16.05 and is categorized as moderate. The standard deviation was 2.88. Data of frequency distribution found that, out of 52 students, students with excellent fitness level is 0 students (0%), 24 sample (46.16%) is categorized as good, 20 sample (38.46%) is categorized as moderate, 7 sample (13.46%) is categorized as low, and 1 sample (1.92%) is categorized as a very low.

Based on the test performed to 54 samples of students of State-owned Elementary school Number 34 Seberang Palinggam, it was found that the highest score for the physical fitness level was 19, while the lowest score was 7, with the mean value of 14.42, which is categorized as moderate. The standard deviation is 3.12. Data of frequency distribution shows that out of 54 students, the fitness levels classified as excellent is 0 sample (0%), 16 sample (29.63%) is classified as good, 17 sample (31.48%) is classified as moderate, 18 sample (33.33%) is classified as low, and 3 sample (5.56%) is classified as very low.

The results of the normality test on the fitness level of students of State-owned Elementary school No.20 Alang Lawas (X1) found that the score of $Lo = 0.115$ with $n = 52$, while $Lt = 0.122$ at significance level $\alpha = 0.05$; since $Lt > Lo$, it is concluded that from the obtained score in the physical fitness level of the students of Alang Lawas Elementary School No.2, the population is normally distributed. Furthermore, the results of the normality test for the students' physical fitness level of the State-owned Elementary School Number 34 Seberang Palinggam (X2) found that the score of $Lo = 0.114$ with $n = 54$, while the $Lt = 0.120$ at the significance level of $\alpha = 0.05$. The score of $Lt > Lo$, so it is concluded that the physical fitness level of students of State-owned Elementary School Number 34 Seberang Palinggam has normally distributed population.

Homogeneity test of the students' physical fitness level in State-owned Elementary school No.20 Alang Lawas with the students' physical fitness level in State-owned Elementary school Number 34 Seberang Palinggam obtained the value of $F_{\text{calculation}} = 1.16$ and $F_{\text{table}} = 1.58$

A Comparison Between the Physical Fitness Exercise 2008 and Physical Fitness Exercise 2012 on the Physical Fitness of the Elementary School Students of Padang Selatan District, Padang

at $\alpha = 0.05$, which means that the $F_{\text{calculation}}$ is lower than F_{table} , so the population is homogeneous.

Hypothesis testing using the T-test technique resulted in the $t_{\text{calculation}}$ (2.81), while the t_{table} (1.98) with a significant level $\alpha = 0.05$, which mean that $t_{\text{calculation}}$ (2.81) $>$ t_{table} (1.98). Thus, H_0 is rejected and H_a is accepted, and it can be concluded that there are significant differences in physical fitness levels between students of State-owned Elementary school No.20 Alang Lawas who practice the SKJ 2012, with the student of State-owned Elementary school Number 34 Seberang Palinggam who practice the SKJ 2008.

The difference in the effect of the two versions of the Physical Fitness Exercise is caused by several factors, including the exercise type and a number of moves, students' lifestyle, neighborhood conditions and nutritional status. The type of moves in the Physical Fitness Exercise 2012 has more variation than the moves of Physical Fitness Exercise 2008 version. It is shown from the difference in the number of moves between the three stages of exercise in each SKJ. The Physical Fitness Exercise 2012 has 11 warming up moves, 5 main course moves and 6 cooling down move, while the Physical Fitness Exercise 2008 only has 6 warming up moves, 5 main course moves, and 5 cooling down moves. This also proves that the exercise type and the number of moves affect the improvement of the students' physical fitness in each school.

Besides, other factors such as lifestyle, neighborhood conditions and nutritional status also affect the fitness of each student. Students of State-owned Elementary school Number 34 Seberang Palinggam live in a neighborhood with a low standard of living; on average, their parents work as unskilled workers. Students of State-owned Elementary school No.20 Alang Lawas come from higher economic status families with a higher standard of living. This will have an impact on the students' nutrition completion, thus affecting the physical fitness of each student. Neighborhood conditions and nutritional status also affect the students' physical fitness of each school, in addition to the exercise type of the Physical Fitness Exercise and the number of moves of each the Physical Fitness Exercise. Gusril in Yanto (2015: 19) suggests that factors that influence the level of physical fitness include: type of work, health status, sex, age, students' level of training, learning motivation and nutritional status.

Based on the explanation of hypotheses results, it is concluded that the Physical Fitness Exercise 2012 has better effects on the student compared to the Physical Fitness Exercise 2008. This can be seen from the difference in the test scores of average achievement of physical fitness for each school that practiced different SKJ versions. The State-Owned Elementary School No.20 Alang Lawas in Padang Selatan District practice the Physical Fitness Exercise 2012 as daily exercise and perform it every morning, while the State-owned Elementary school Number 34 Seberang Palinggam in Padang Selatan District City of Padang practice the Physical Fitness Exercise 2008 as a physical fitness exercise that is applied every morning.

The Physical Fitness Exercise 2012 has a better influence in improving students' physical fitness compared to the Physical Fitness Exercise 2008. This is in line with the objectives of the Physical Fitness Exercise 2012, in which according to Kemenpora (2012: v), is a set of exercise moves that have been set to improve/maintain one's physical fitness". Therefore, the study found that the Physical Fitness Exercise 2012 is more effective in forming and improving students' physical fitness.

4. CONCLUSIONS

Based on the results of data analysis that has been stated previously, the conclusions are as follow:

- The Physical Fitness Exercise 2012 version has a better effect on students' physical fitness compared to the Physical Fitness Exercise 2008.
- There are differences in the physical fitness level of students of the state-owned Elementary school No.20 Alang Lawas with the students of the State-owned Elementary school Number 34 Seberang Palinggam with the $t_{\text{calculated}} = 2.81 > t_{\text{table}} = 1.98$. Thus, the H_0 is rejected and H_a is accepted. It is concluded that there is a significant difference in the physical fitness level between the students of the State-Owned Elementary School No.20 Alang Lawas that practice the Physical Fitness Exercise 2012 and the students of the State-Owned Elementary School Number 34 Seberang Palinggam that practice the Physical Fitness Exercise 2008.

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